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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 08/650,719      | 05/20/96    | MAILLOUX             | SM 95-0652          |

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LM02/0814

| EXAMINER |
|----------|
| KIM, H   |

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 2751     |              |

DATE MAILED: 08/14/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/650,719

Applicant(s)

Mailoux et al.

Examiner

H. Kim

Group Art Unit

2751

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 (three) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 11/3/97
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-58 is/are pending in the application.
- Of the above claim(s) 11-32, 36-45, 451-50 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-10, 33-35, 46-50 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 3
- ☐ Interview Summary, PTO-413
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

### Detailed Action

1. Applicant's election of claims 1-10, 33-35, 46-50 without traverse in Paper No. 4 is acknowledged. Claims 1-10, 33-35, 46-50 are presented for examination. This office action is in response to the Amendment filed on 11/97.
2. It is noted that this application appears to claim subject matter disclosed in the co-pending section of this application. Applicants are reminded to maintain a clear line of demarcation between this application and co-pending applications to avoid possible double patenting.
3. The status of the related U.S. applications or patents should be included as appropriate in the CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification, if any. (e.g., U.S. Patent Application Serial No. ####,### filled Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number ####,###, filed on December 01, 1990, now abandoned; ...etc.)
4. Receipt is acknowledged of information disclosure statement filed on 11/3/97, which the statement has been placed of record in the file. Information disclosed and listed on PTO 1449 was considered.

### *Specification*

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should be more specific to differentiate the invention from similar inventions in the patent literature.

It appears --mode selection circuitry--and --asynchronously-accessible-- should be included in the title so that the title is more descriptive of the claimed invention.

### *Claim Objections*

6. Claims 5, 8 are objected to because of the following informalities:

As to claims 5, 8, it appears that "a storage" should be changed to -- the storage-- or -- a second storage-- for clarity.

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-10, 33-35, 46-50 are rejected under 35 USC § 103(a) as being unpatentable over Johnson et al., (Johnson) U.S. Patent 4,581,990 in view of Manning, U.S. Patent 5,652,724 or Olsen et al., (Olsen) U.S. Patent 4,519,028.

As to claim 1, Johnson, discloses a storage device (Ref. 1 Ref. 103) capable to switch between the pipelined mode and burst mode (col. 10 lines 48-49) and pipeline/burst circuitry (Fig. 5 and Fig. 6). However, Johnson does not specifically disclose a mode circuitry configure to select between two modes.

Manning discloses a mode circuitry configure to select between two modes (Fig. 1 Ref. 40 and col. 6 lines 14-16) for the purpose of increasing memory data throughput in a system. Alternatively, Olsen discloses a mode circuitry configure to select between two modes (Fig. 5) for the purpose of providing versatility thereby improving data throughput. It is highly desirable in a storage device to support to select between burst or pipeline mode because it would improve data throughput.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a mode circuitry configure to select between two modes of Manning or Olsen into the invention of Johnson because it would increase memory data throughput.

As to claims 10, 33, and 46, Johnson further discloses asynchronous operation ("If not, a

simple access is completed with result and \*IRDY or \*DRDY being driven over the interface by the slave device. The processor latched the result, and the simple access is complete”, col. 10 lines 50-54, reads on this limitation because it indicates Asynchronous memory operation). Johnson also discloses receiving a first address and a second address (Fig. 5 and Fig. 6).

As to claim 50, Johnson further discloses a system clock coupled to the processor (Fig. 2, SYSCLK), the memory not operating directly off the system clock (“If not, a simple access is completed with result and \*IRDY or \*DRDY being driven over the interface by the slave device. The processor latched the result, and the simple access is complete”, col. 10 lines 50-54, reads on this limitation because it indicates Asynchronous memory operation). Johnson also discloses receiving a first address and a second address (Fig. 5 and Fig. 6).

As to claims 2, 3, and 4, Manning further discloses EDO memory (col. 1 line 64).

As to claim 5, Johnson further discloses storage device for storing an address (Fig. 5 and Fig. 6).

As to claim 6, Johnson further discloses at least one counter (Fig. 6 and col. 12 lines 45-48).

As to claim 7, Johnson further discloses receiving an external address (Fig. 6 and col. 12 lines 45-48).

As to claim 8, Johnson further discloses storage device for storing an external address (Fig. 6 and col. 12 lines 45-48).

As to claim 9, Johnson further discloses multiplexed devices for providing an internally generated address to the storage device (Fig. 6 and col. 12 lines 45-48 reads on this limitation).

As to claim 34, Johnson further discloses a step of switching between the pipelined mode and burst mode (col. 10 lines 48-49).

As to claim 35, Johnson further discloses the second address is an external address (Fig. 5 and col. 12 lines 45-48).

As to claim 47, Johnson further discloses a pipelined mode and a burst mode (col. 10 lines 48-49).

As to claims 48 and 49, either Manning or Olsen further discloses column, row, application, fixed access based switching (Fig. 1 in Manning and Fig. 12 in Olsen).

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 USC 133, MPEP 710.02, 710.02(b)).

11. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eddie Chan, can be reached on (703) 305-9712.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.



13. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051-2, (for formal communications intended for entry)

**Or:**

(703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington. VA., Sixth Floor (Receptionist).

*idh*

HK  
Patent Examiner  
August 9, 1998

*Eddie P. Chan*  
EDDIE P. CHAN  
SUPERVISORY PATENT EXAMINER